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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,046

01/23/2006

Le Gal Guy

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10/14/2008

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EXAMINER

AFTERGUT, JEFF H

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

10/14/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,046	Applicant(s) GUY, LE GAL	
	Examiner Jeff H. Aftergut	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-77 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 73-75 is/are rejected.
- 7) ☒ Claim(s) 4-72, 76 and 77 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12-12-05</u> . | 6) <input type="checkbox"/> Other: ____. |

Claim Objections

1. Claims 4-72, 76 and 77 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend upon another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 4-72, 76, and 77 have not been further treated on the merits.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 73-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoeld.

Shoeld taught that one skilled in the art at the time the invention was made would have provided a winding system for manufacturing an electrochemical cell of a jelly roll type for a storage battery. the reference taught that those skilled in the art would have formed the cell in a winding operation which included multiple feed means including supply rolls for lead foil and paper as well as drive rollers 21 for feeding the same to the winding device. The reference additionally taught that there was a means for laminating the sheet structures received from the feed means including laminating pinch rollers 23, 25 and adhesive application devices 27, 29. The reference additionally taught a winder means including a spindle 1 and a core disposed upon the same. The reference also suggested that one skilled in the art would have included a control means which was for

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continuously and in controlled synchronism controlling the feed means as well as the winder means, as described at column 2, lines 5-28, column 3, lines 5-12. the reference did not expressly state that the rotation of the pinch rollers 23, 25 which made up the laminating means were part of the rollers which were controlled in the operation, however, there is no reason to believe that one skilled in the art would have coupled these rollers to the control system as well since they are also responsible for the feed of the material to the winding means. The reference taught that the laminator means included a pair of presser rollers see pair of rollers 23, 25 of the reference. The language "timezone-shaped section" is not clear and concise and thus it is not known exactly what shape for the mandrel one is defining. However, it would have been within the purview of the ordinary artisan to select a mandrel of any desired shape in order to configure the jelly roll into the desired configuration. Regarding claim 74, note that the reference taught that the laminating and the winding were performed continuously in the operation. regarding claim 75, note that the webs of material (paper and lead foil) are laminated insitu in the winding operation directly from the feed means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the techniques of Shoeld to control the winding operation to achieve a suitable finished assembly for a electrochemical cell for a battery wherein the rate of feed of the webs being wound was not only controlled relative to the take up but also the lamination in line with the winding was likewise controlled relative to the winding in order to ensure proper tensioning of the layers being wound.

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4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the reference as set forth above in paragraph 3 further taken with either one of Clark, Howard et al, Kelm et al or Strickland et al.

While the reference to Shoeld expressed the winding of the electrochemical cell in a jelly roll type of winding operation, the references failed to teach an oddly shaped mandrel for winding the sheets of material in the manufacture of the electrochemical cell. However, it was known as taught by any one of Clark, Strickland et al, Howard et al or Kelm et al. The applicant is advised that those skilled in the art at the time the invention was made would have understood that the shape of the finished electrochemical cell would have been dictated by the shape of the mandrel. It would have been within the purview of the ordinary artisan to select a mandrel shape to achieve the desired shape of the finished cell assembly and such would have included a mandrel assembly which included a unique shape which would have imparted a different shape to the finished assembly as suggested by any one of Clark, Strickland et al, Howard et al or Kelm et al in the process of making an electrochemical cell as taught by Shoeld as discussed above in paragraph 3.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hug et al taught a useful winding operation for forming an electrochemical cell.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:30-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff H. Aftergut/
Primary Examiner
Art Unit 1791

JHA
October 6, 2008